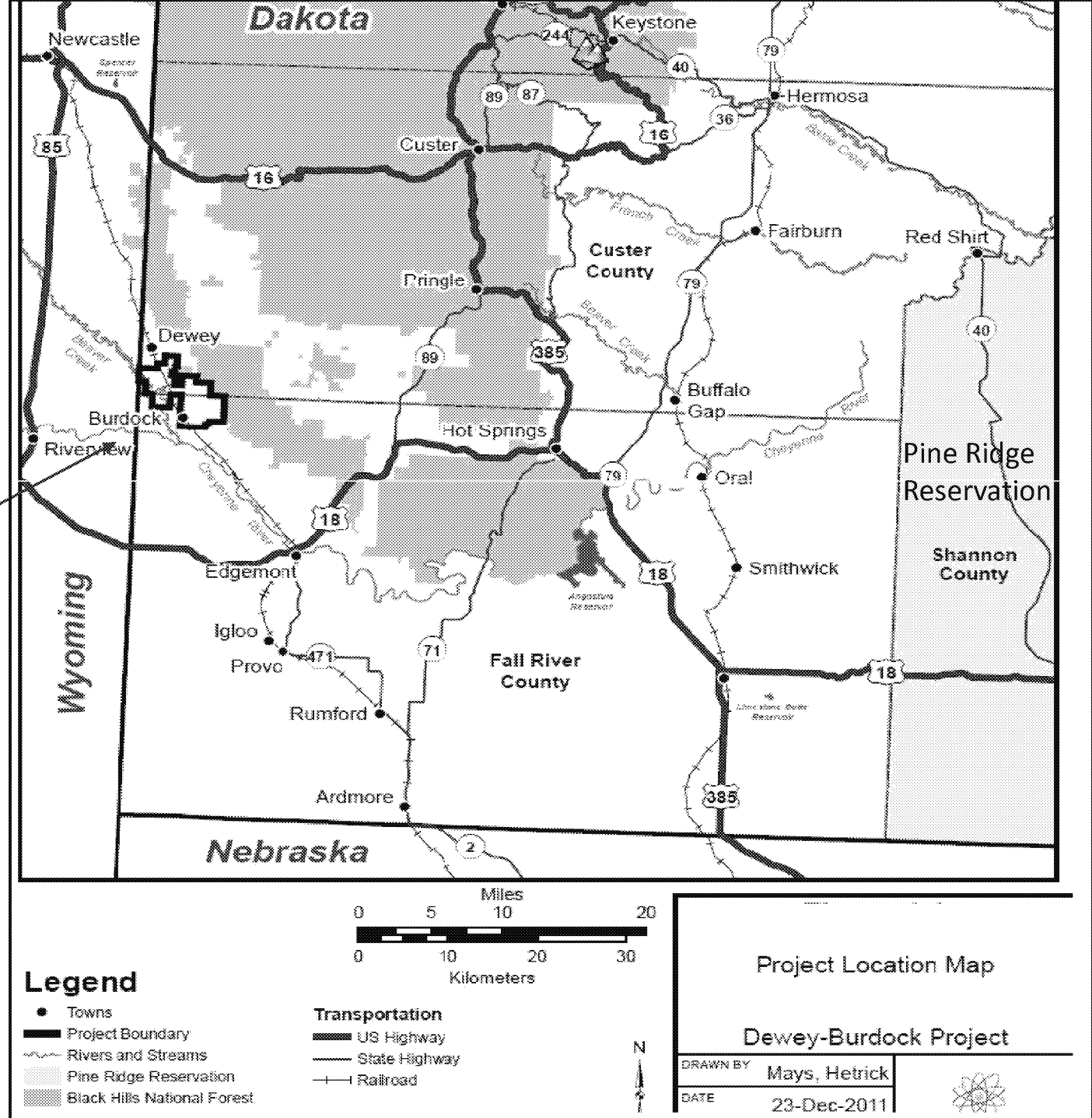


Figures for the Dewey-Burdock UIC Permits & Aquifer Exemption Brief

Dewey Burdock
Project Site

Figure 1. Location Map



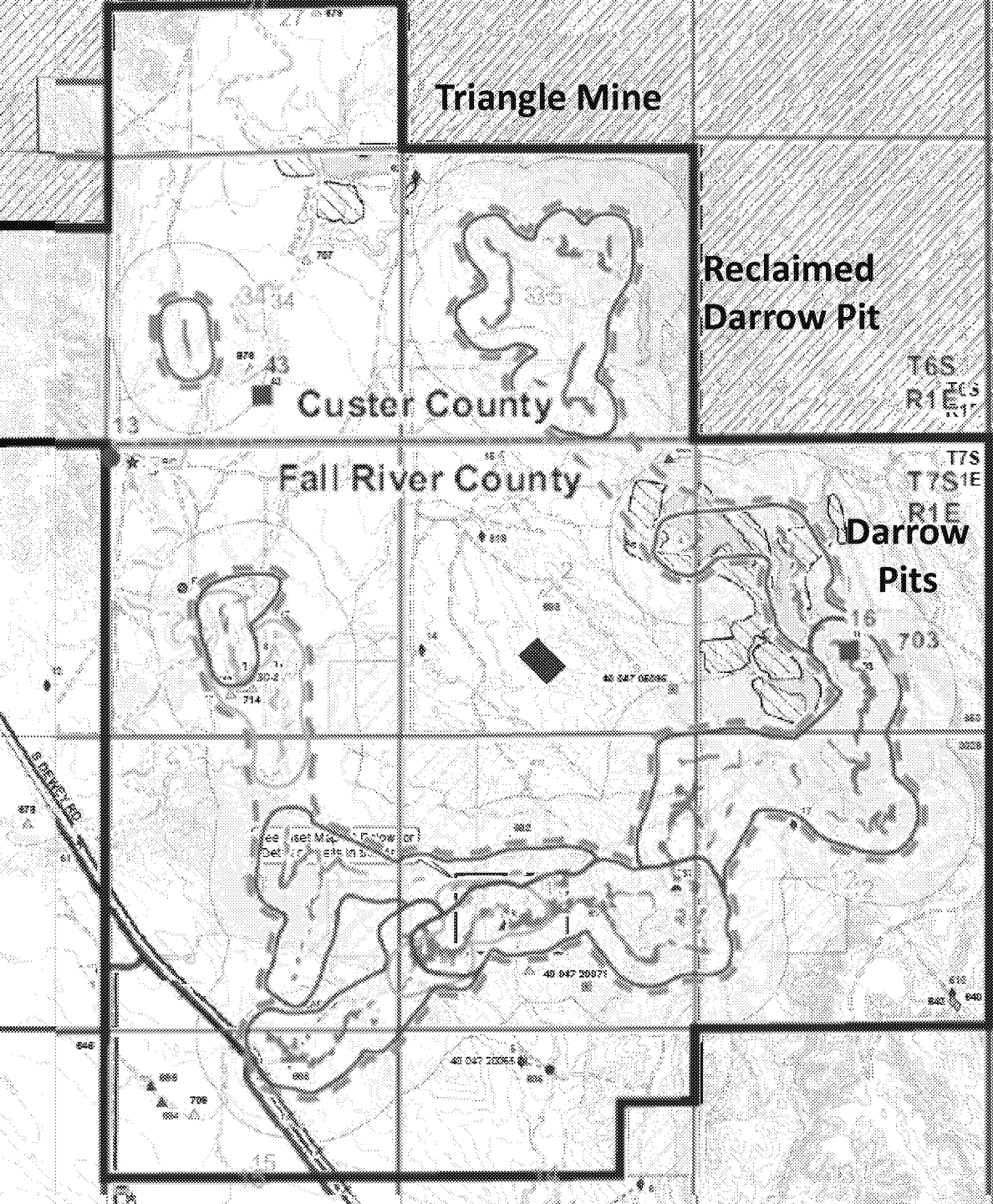


Figure 2. Proposed Wellfields and Abandoned Mine Locations

Figure 3. Timeline

DELIBERATIVE

Completed

Next 30 days

Next 60 days

Next 60 days +

- ☒ Share Draft Permits/AE with OGWDW/OGC and brief OGWDW in Denver
- ☒ ESA: Assess/Document Species Impacts in draft USFWS consultation letter
- ☒ EP&R/ECEJ Review Class III Draft Permit Docs
- ☒ Brief RA for meeting with Powertech; RA meets with Powertech.
- ☒ EP&R Review of AE
- ☒ UIC ECEJ Review Class V Draft Permit Docs
- ☒ ESA: Draft consultation letter for internal review
- ☒ NRC/Atomic Safety Licensing Board (ASLB) decision on NHPA (4/30)

- ☐ Brief RA: Update briefing on Permits/AE prior to SD midyear.
- ☐ Tribal Consultation: In light of ASLB decision, strategize path forward on NHPA 106 compliance, General Consultation Plan and communication with Tribes.
- ☐ ESA: USFWS Liaison completes informal review of EPA's consultation letter.

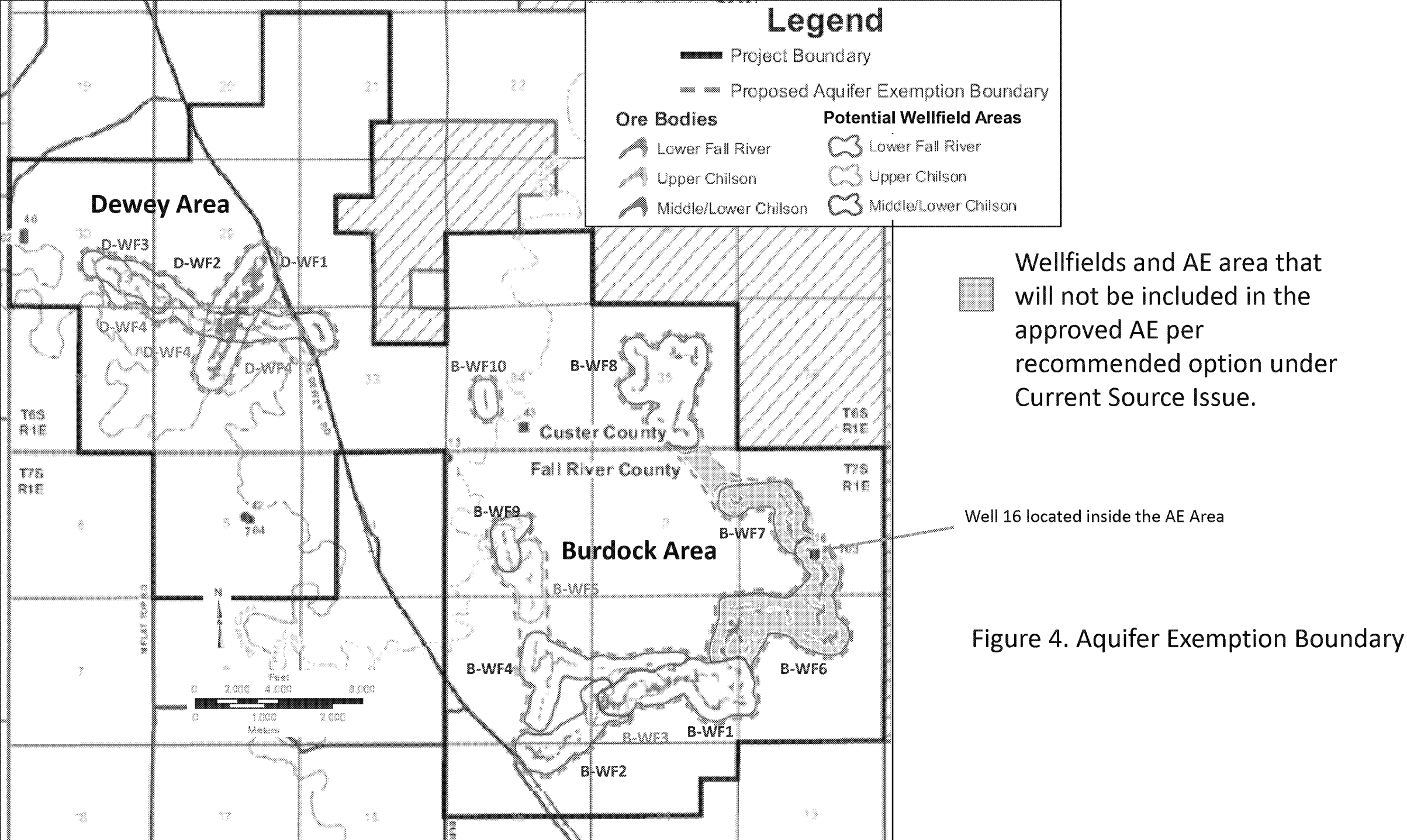
- ☐ RA visit to South Dakota including DB site visit
- ☐ Tribal Consultation: Brief Tribes on NHPA compliance proposal and begin general consultation.
- ☐ Send General Consultation Invitation Letters to Tribes
- ☐ Issue Draft Permits/AE Decision for 60 day comment period
- ☐ ESA: Consultation letter to USFWS for concurrence.

- ☐ Hold two public hearings in SD
- ☐ Conclude ESA Consultation with USFWS concurrence
- ☐ Receive and address public comments
- ☐ Issue letter designating NRC lead on NHPA 106 Consultation Process and adopting Programmatic Agreement
- ☐ Complete Tribal Consultation Process

May 1st

June 1st

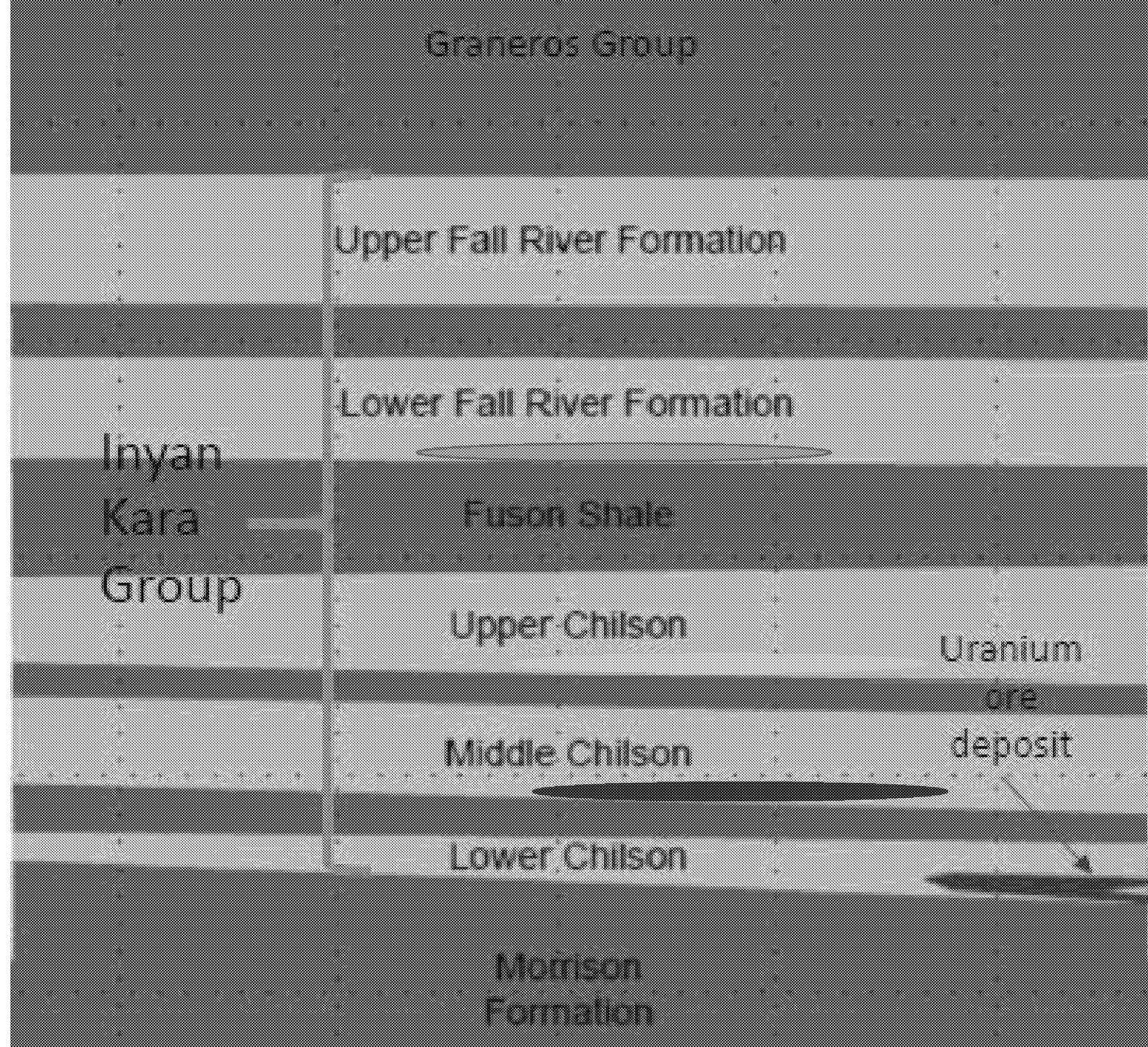
July 1st



Ore Bodies

- Lower Fall River
- Upper Chilson
- Middle/Lower Chilson

Figure 5. Vertical Extent of Aquifers
Proposed for Exemption



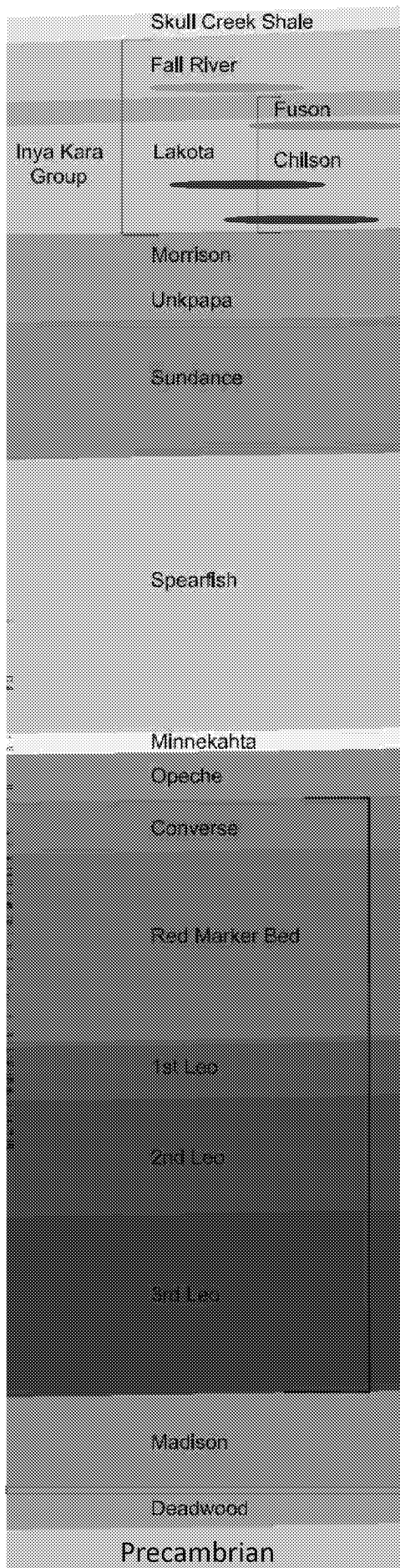


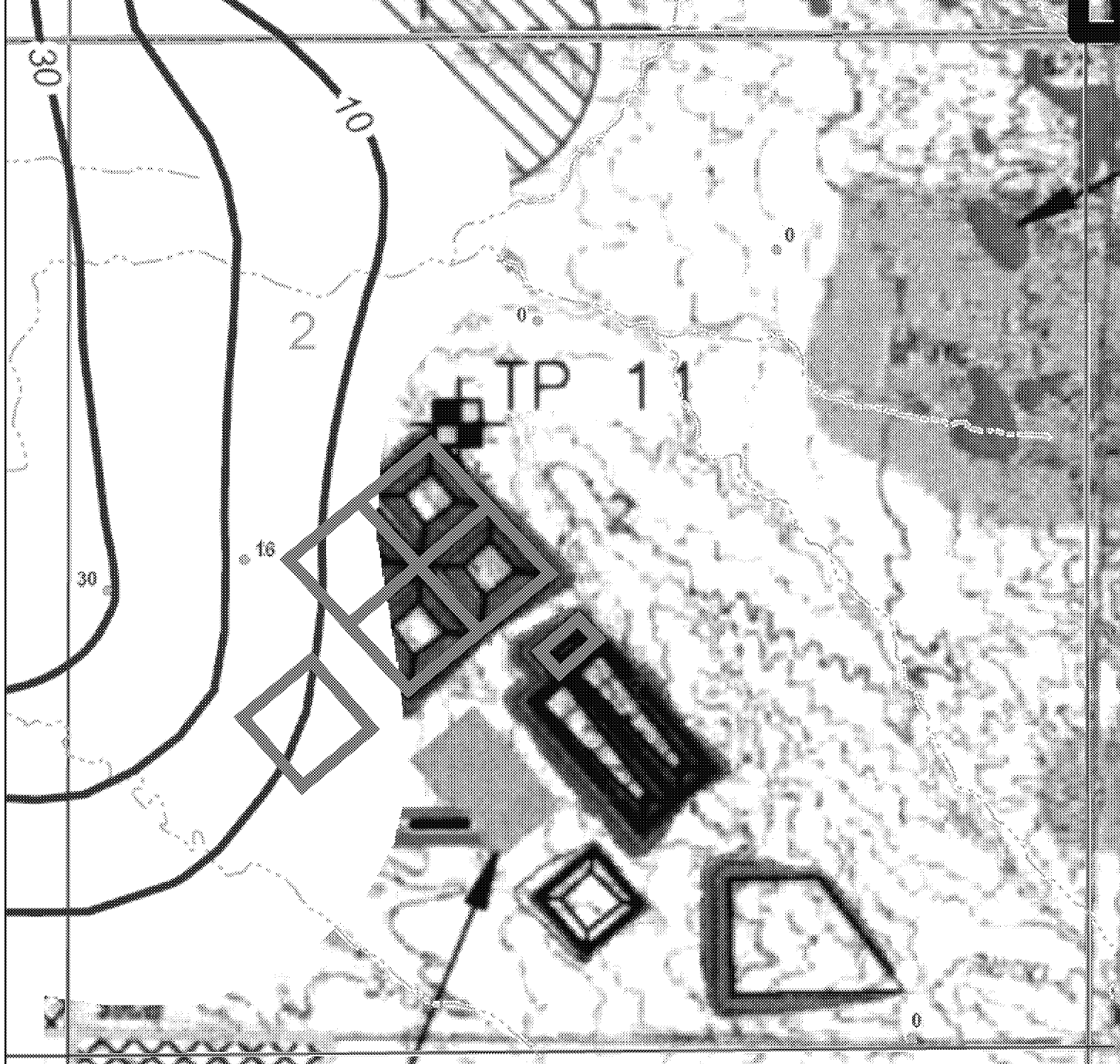
Figure 6. Stratigraphic Column at Dewey-Burdock Site Showing Class V Injection Zones

Minnelusa Injection Zone
~ 590 ft thick

Lower Minnelusa
Confining Zone
~ 560 ft thick

Madison USDW ~200 ft thick

Lower Madison Confining Zone ~100 ft thick
Englewood Confining Zone ~35 ft thick
Deadwood Injection Zone ~100 ft thick



Legend

 Permit Boundary

 Alluvium Thickness (feet)

Alluvium



Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system



Black outline indicates double-lined pond with leak detection system

Figure 7.
Burdock Area Ponds -
Land Application Scenario
for ISR Process Waste
Fluids

Legend

 Permit Boundary

 Alluvium Thickness (feet)

Alluvium



Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system



Blue outline indicates double-lined pond with leak detection system

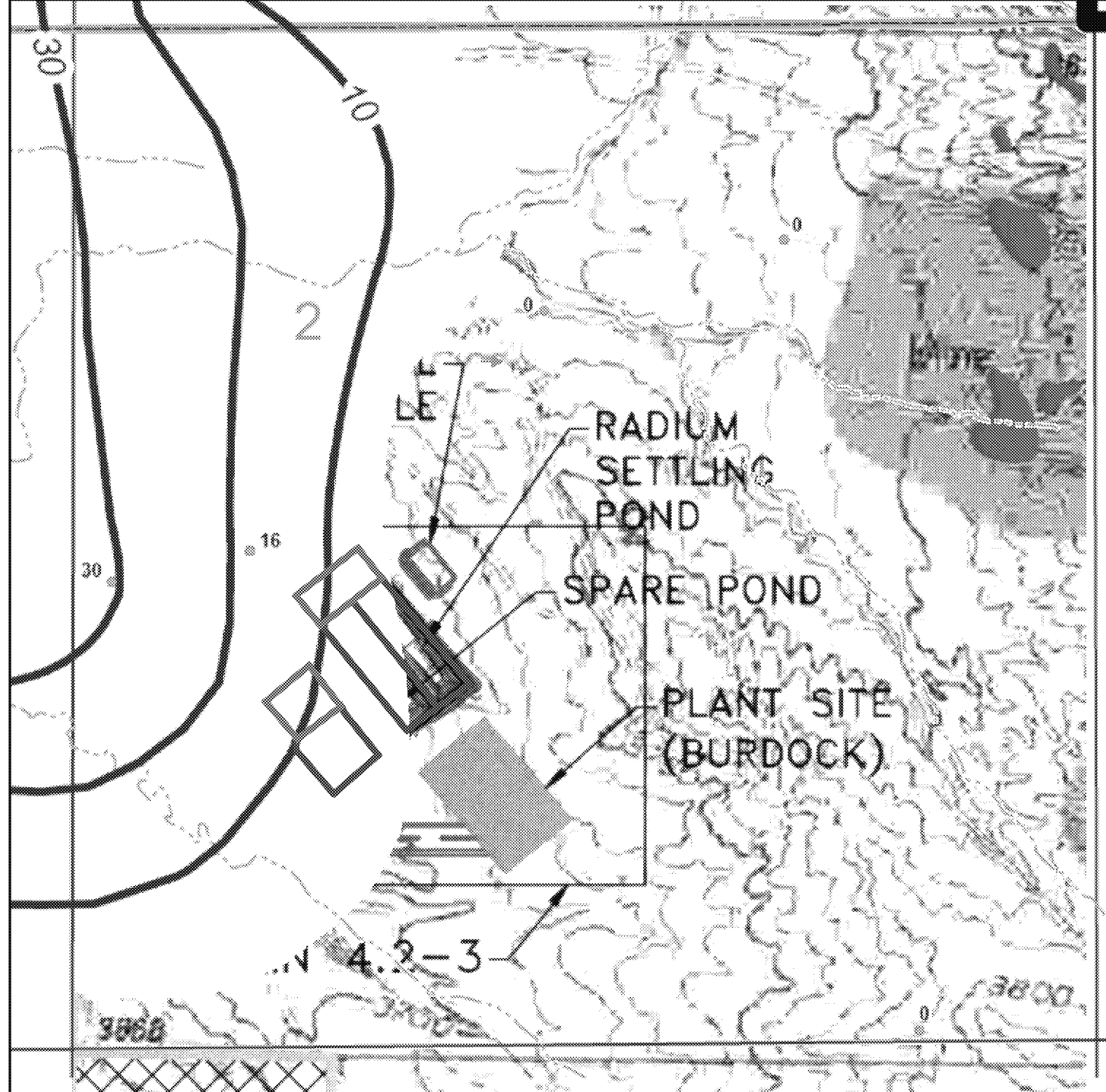


Figure 8.
Burdock Area Ponds -
Deep Class V Disposal Well
Scenario for ISR Process
Waste Fluids

Legend

Alluvium

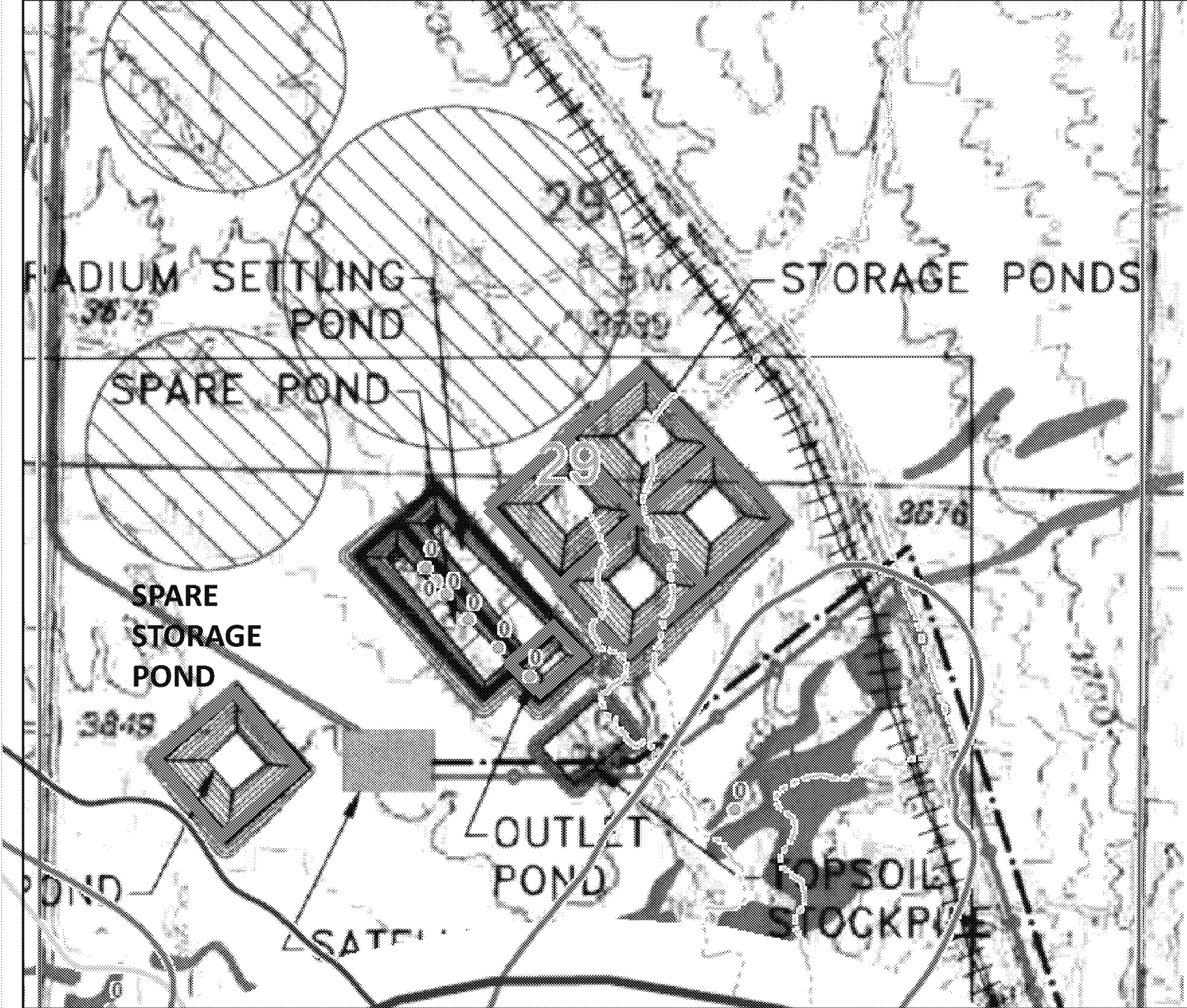


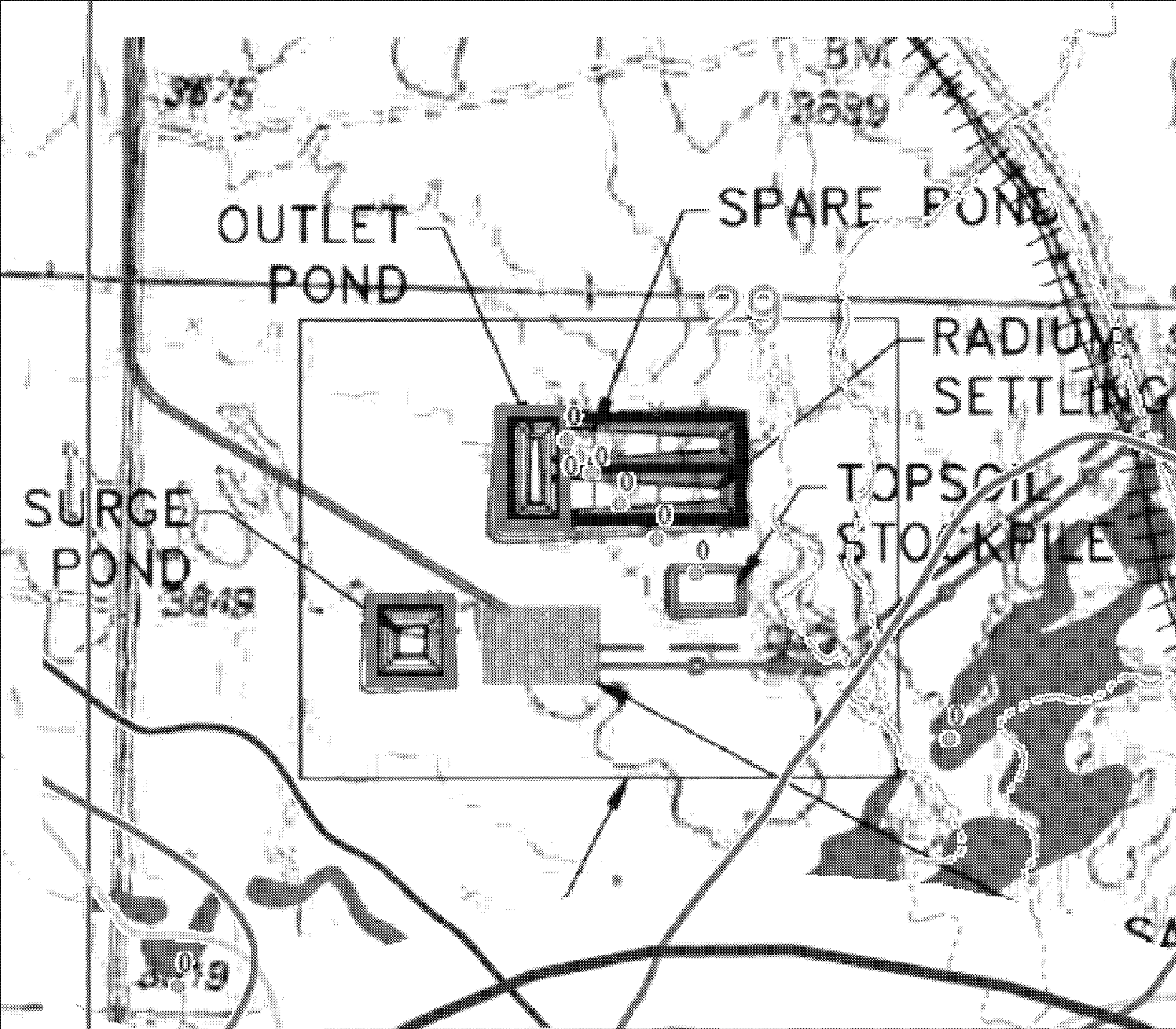
Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system



Black outline indicates double-lined pond with leak detection system

Figure 9.
Dewey Area Ponds –
Land Application Scenario
for ISR Process Waste
Fluids





Legend

Alluvium



Pink outline indicates pond without a secondary HDPE liner on top of clay liner and without a leak detection system



Black outline indicates double-lined pond with leak detection system

Figure 10.
Dewey Area Ponds –
Deep Class V Disposal Well
Scenario for ISR Process
Waste Fluids